

WHAT IS CLAIMED IS:

1. A hybrid antigen comprising at least one antigenic domain of an infectious agent or tumor antigen, at least one binding domain that non-covalently binds to a heat shock protein, and at least one peptide linker there between selected from the group consisting of  
5 Phe Phe Arg Lys (FFRK; SEQ ID NO:1000); Phe Arg Lys (FRK); Phe Arg Lys Asn (FRKN, SEQ ID NO: 1002); Arg Lys Asn (RKN); Phe Phe Arg Lys Asn (FFRKN, SEQ ID NO:1003); Phe Arg (FR), Gln Leu Lys (QLK), Gln Leu Glu (QLE), Ala Lys Val Leu (AKVL; SEQ ID NO:1001); Lys Asn (KN); Arg Lys (RK); and AA1-AA2-AA3-leucine, wherein AA1 is A, S, V, E, G, L, or K, AA2 is K, V, or E; and AA3 is V, S, F, K, A, E, or  
10 T.
2. A composition for inducing an immune response to an infectious agent or tumor antigen comprising at least one hybrid antigen of Claim 1.
3. A composition for inducing an immune response to an infectious agent or tumor antigen comprising a complex of at least one heat shock protein and at least one hybrid  
15 antigen of Claim 1.
4. The composition of claim 3 wherein the heat shock protein is a hsp70.
5. A method for inducing an immune response to an infectious agent or tumor antigen comprising administering to a subject at least one hybrid antigen of Claim 1.  
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6. A method for inducing an immune response to an infectious agent or tumor antigen comprising administering to a subject a complex of:
  - (a) a hybrid antigen of Claim 1; and
  - (b) a heat shock protein;  
25 wherein the hybrid antigen and the heat shock protein are non-covalently bound.
7. The method of claim 6 wherein the heat shock protein is a hsp70.

8. A method for treating an infectious disease or cancer comprising administering to a subject at least one hybrid antigen of Claim 1, wherein at least one antigenic domain is from the infectious disease or cancer.

5 9. A method for treating an infectious disease or cancer comprising administering to a subject a complex of:

- (a) a hybrid antigen of Claim 1, wherein at least one antigenic domain is from the infectious disease or cancer; and
- (b) a heat shock protein;

10 wherein the hybrid antigen and the heat shock protein are non-covalently bound.

10. The method of claim 9 wherein the heat shock protein is a hsp70.

11. A hybrid antigen consisting essentially of at least one antigenic domain of an infectious agent or tumor antigen, at least one binding domain that non-covalently binds to a heat shock protein, and at least one peptide linker there between, and wherein peptide linker is selected from the group consisting of Phe Phe Arg Lys (FFRK; SEQ ID NO:1000); Phe Arg Lys (FRK); Phe Arg Lys Asn (FRKN, SEQ ID NO: 1002); Arg Lys Asn (RKN); Phe Phe Arg Lys Asn (FFRKN, SEQ ID NO:1003); Phe Arg (FR), Gln Leu Lys (QLK), Gln 20 Leu Glu (QLE), Ala Lys Val Leu (AKVL; SEQ ID NO:1001); Lys Asn (KN); Arg Lys (RK); and AA1-AA2-AA3-leucine, wherein AA1 is A, S, V, E, G, L, or K, AA2 is K, V, or E; and AA3 is V, S, F, K, A, E, or T.

12. A composition for inducing an immune response to an infectious agent or tumor 25 antigen comprising at least one hybrid antigen of Claim 11.

13. A composition for inducing an immune response to an infectious agent or tumor antigen comprising a complex of at least one heat shock protein and at least one hybrid antigen of Claim 11.

14. The composition of claim 13 wherein the heat shock protein is a hsp70.

15. A method for inducing an immune response to an infectious agent or tumor antigen comprising administering to a subject at least one hybrid antigen of Claim 11.

5 16. A method for inducing an immune response to an infectious agent or tumor antigen comprising administering to a subject a complex of:

- (a) a hybrid antigen of Claim 11; and
- (b) a heat shock protein;

wherein the hybrid antigen and the heat shock protein are non-covalently bound.

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17. The method of claim 16 wherein the heat shock protein is a hsp70.

18. A method for treating an infectious disease or cancer comprising administering to a subject at least one hybrid antigen of Claim 11, wherein at least one antigenic domain is from the infectious disease or cancer.

15 19. A method for treating an infectious disease or cancer comprising administering to a subject a complex of:

- (a) a hybrid antigen of Claim 1, wherein the antigenic domain is from the infectious disease or cancer; and
- (b) a heat shock protein;

wherein the hybrid antigen and the heat shock protein are non-covalently bound.

20. The method of claim 19 wherein the heat shock protein is a hsp70.

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21. A peptide that is Phe Phe Arg Lys (FFRK; SEQ ID NO:1000); Phe Arg Lys (FRK); Phe Arg Lys Asn (FRKN, SEQ ID NO: 1002); Arg Lys Asn (RKN); Phe Phe Arg Lys Asn (FFRKN, SEQ ID NO:1003); Phe Arg (FR), Gln Leu Lys (QLK), Gln Leu Glu (QLE), Ala Lys Val Leu (AKVL; SEQ ID NO:1001); Lys Asn (KN); Arg Lys (RK); or AA1-AA2-

AA3-leucine, wherein AA1 is A, S, V, E, G, L, or K, AA2 is K, V, or E; and AA3 is V, S, F, K, A, E, or T.